

# Select-Clause

The Select-Clause consists of one of the following:

- SELECTION Workplan
- Natural Object Selection
- Natural-related Object Selection
- Natural System Error Selection
- Natural Command Processor Selection
- External Object Selection
- FDT Selection

## **Natural DDM Selection:**

For selecting Natural DDMs, the same syntax applies as described for Natural Object Selection.

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## SELECTION Workplan

A workplan of the type SELECTION contains the selection of one of the following: Natural objects, Natural-related objects, Natural system error messages, Natural command processors, external objects, FDTs or an object list, as described in the relevant section. An object list can be used for the FIND and UNLOAD commands only.

## Natural Object Selection

### Command Syntax

*object-name*

**LIBRARY** *library-name*

```

[
    DBID dbid FNR fnr [NAME vsam-name ] [CIPHER cipher ]
    [ { PASSWORD PSW } password ] ]
[OBJTYPE resource-type ]
[NATTYPE object-type ]
[SCKIND object-kind ]
[MODE object-mode ]
[FMNUM error-number-from ]
[TONUM error-number-to ]
[SLKIND message-type ]
[LANGUAGE languages ]
[DDMDBID ddm-dbid ] [DDMFNR ddm-fnr ]
[NATVERS natural-version ]
[ { DATE date
  [ FMDATE date-from ] [TODATE date-to ] } ]
[ { SIZE size
  [ FMSIZE size-from ] [TOSIZE size-to ] } ]
[USERID user-id ]
[TID terminal-id ]
[EXCEPT- Clause]
```

## EXCEPT-Clause

**EXCEPT***(object-name***[LIBRARY library-name ]****[OBJTYPE resource-type ]****[SCKIND object-kind ]****[NATTYPE object-type ]****[MODE object-mode ]****[SLKIND message-type ]****[FMNUM error-number-from] [TONUM error-number-to ]****[DDMDBID ddm-dbid ] [DDMFNR ddm-fnr ]****[NATVERS natural-version ]**

[	{	<b>DATE</b> <i>date</i>	}	]
		[ <b>FMDATE</b> <i>date-from</i> ] [ <b>TODATE</b> <i>date-to</i> ]		

[	{	<b>SIZE</b> <i>size</i>	}	]
		[ <b>FMSIZE</b> <i>size-from</i> ] [ <b>TOSIZE</b> <i>size-to</i> ]		

**[USERID user-id ]****[TID terminal-id ]***)***Note:**

For the command FINDLIB only the following items are processed: LIBRARY, DBID, FNR, NAME, CIPHER and PASSWORD/PSW.

**Keyword Explanation - Natural Object Selection**

Below is a description of the keywords and the valid values for the objects to be processed:

Keyword	Values	Default Value
<i>object-name</i>	A valid Natural object name or a range of names. If <i>object-name</i> contains blank characters, it must be enclosed in quotation marks (" ").  (*) See also Name.	none
<u>LIBRARY</u>	A valid Natural library name or a range of names.  If OBJTYPE= <b>D</b> (see below), the library name is ignored.  (*) See also Name.	none
DBID	Not valid for DDMs on mainframes (OBJTYPE <b>D</b> - see below).  A valid DBID.	0 (current FNAT/FUSER)

Keyword	Values	Default Value
FNR	Not valid for DDMs on mainframes (OBJTYPE <b>D</b> - see below). A valid FNR.	0 (current FNAT/FUSER)
NAME	Only applies to objects on mainframes. Not valid for DDMs on mainframes (OBJTYPE <b>D</b> - see below). A valid VSAM name.	blank (current FNAT/FUSER)
CIPHER	Only applies to objects on mainframes. Not valid for DDMs on mainframes (OBJTYPE <b>D</b> - see below). The 8-digit cipher code of the Adabas file where the objects are located.	blank (current FNAT/FUSER)
PASSWORD	Only applies to objects on mainframes.	blank (current FNAT/FUSER)
PSW	An 8-character Adabas password.	
<u>OBJTYPE</u>	Types of objects are:  <div style="margin-left: 40px;"> <b>N</b> Natural programming objects  <b>E</b> Natural error messages  <b>D</b> DDMs (objects on mainframes only)  * Asterisk (all) </div> or any valid combination.	*
<u>NATTYPE</u>	Up to 15 valid Natural object types, such as <b>P</b> for program and <b>V</b> for DDMs.  Asterisk (*) = all	*
<u>SCKIND</u>	Not applicable if OBJTYPE=D (see above).  Kind of Natural programming objects:  <div style="margin-left: 40px;"> <b>S</b> Source objects. If used in the EXCEPT clause: objects that exist in source form only.   <b>C</b> Cataloged objects. If used in the EXCEPT clause: objects that exist in cataloged form only.   <b>A</b> All saved and cataloged objects.   <b>W</b> Source and cataloged objects if both have the same date and time (stowed).   <b>B</b> Source and cataloged objects if both exist. </div> <b>Note:</b> <b>W</b> (stowed) and <b>B</b> (both) are valid for the UNLOAD and FIND commands only. For LOAD and SCAN, <b>W</b> and <b>B</b> are valid entries, but they are treated like <b>A</b> (all objects). If data are processed in Transfer format, only <b>S</b> (source objects) and <b>A</b> applies.	A

Keyword	Values	Default Value
MODE	<p>Not applicable if OBJTYPE=D (see above).</p> <p>The type of programming mode of the Natural programming objects:</p> <p><b>R</b> All objects in report mode.</p> <p><b>S</b> All objects in structured mode.</p> <p><b>A</b> Any.</p>	A
FMNUM	<p>The start number of the Natural error messages.</p> <p>Valid range: 1 to 9999.</p>	1
TONUM	<p>The end number of the Natural error messages.</p> <p>Valid range: 1 to 9999.</p> <p>The value must be greater than or equal to the value of FMNUM, if specified.</p>	9999 or value of FMNUM
<u>SL</u> KIND	<p>The type of Natural error message texts:</p> <p><b>S</b> Short text. Cannot be applied to the DELETE command (see Direct and PROCEDURE Workplan Commands).</p> <p><b>L</b> Long text.</p> <p><b>A</b> Short and long text, or the one that exists.</p> <p><b>B</b> Short and long text, but only if both exist.</p>	A
<u>LANGUAGE</u>	<p>Up to 8 valid language codes of Natural error messages.</p> <p>Asterisk (*) = all language codes.</p>	*
DDMDBID	<p>Valid DBID (1 to 65535) of the DDM.</p> <p>0 = all DBIDs.</p>	0 (no check)
DDMFNR	<p>Valid FNR (1 to 65535) of the DDM.</p> <p>0 = all FNRs.</p>	0 (no check)
NATVERS	<p>The Natural version of the Natural programming objects.</p> <p>Valid version format: <i>VRSM</i> where <i>V</i> is the 1-digit version, <i>R</i> the 1-digit release, and <i>SM</i> the 2-digit system maintenance level.</p> <p>Ranges are allowed: see (*) Name.</p>	blank (no check)
DATE	<p>The save or catalog date of the Natural programming objects.</p> <p>You can add a time by inserting a blank between date and time. For the format and ranges allowed, see (*) Date and (*) Time.</p> <p>Special terms allowed are <u>YESTERDAY</u> and <u>TODAY</u>. See (*) Special Dates.</p>	blank (no check)
FMDATE	<p>Start value: the date on or after which the Natural programming objects were cataloged or saved.</p> <p>The format is identical to DATE. See (*) Date.</p> <p>Special terms allowed are <u>YEAR</u>, <u>MONTH</u>, <u>YESTERDAY</u> and <u>TODAY</u>. See (*) Special Dates.</p>	blank (no check)

Keyword	Values	Default Value
TODATE	End value: the date on or before which all Natural programming objects were cataloged or saved. The format is identical to DATE. See (*) Date.  Special terms allowed are <u>YEAR</u> , <u>MONTH</u> , <u>YESTERDAY</u> and <u>TODAY</u> . See (*) Special Dates.	blank (no check) or high value (if FMDATE specified)
SIZE	The size of the Natural programming objects. Maximum: 7-digit number.	0 (no check)
FMSIZE	The start value for the size of the Natural programming objects. Maximum: 7-digit number.	0 (no check)
TOSIZE	The end value for the size of the Natural programming objects. Maximum: 7-digit number.	0 (no check) or high value (if FMSIZE specified)
<u>USERID</u>	The ID of the user who saved or cataloged the Natural programming objects: 8-character Natural user ID or a range of IDs. See also (*) Name.	blank (no check)
TID	Not applicable if OBJTYPE=D (see above).  Terminal ID of the terminal where the Natural programming objects were saved or cataloged: 8-digit Natural terminal ID as provided by the system variable *INIT-ID or a range of IDs. See also (*) Name.	blank (no check)
<u>EXCEPT</u>	All objects which match the selection criteria entered before EXCEPT are checked against <b>all</b> parameters contained within the parentheses following the keyword <u>EXCEPT</u> . If they match all these parameters too, they are not processed.	not applicable

**Note:**

- Parameters that are irrelevant for OBJTYPE are ignored. For example: DATE, SIZE and USERID have no meaning for Natural error messages.
- DBID, FNR, NAME, CIPHER and PASSWORD/PSW are ignored by the LOAD and SCAN commands. These parameters must be specified in the Parameter-Setting clause as described for LOADFNAT... and LOADFUSER... in Keyword Explanation - Parameter-Setting.

## Natural-related Object Selection

This selection is used to select Natural-related objects, Natural system error messages and Natural command processors.

### Command Syntax

```

object-name NATPATH natural-path-name

    [ { SIZE size } ]
      [ FMSIZE size-from ] [ TOSIZE size-to ]

    [ { DATE date } ]
      [ FMDATE date-from ] [ TODATE date-to ]

    [ EXCEPT
      (object-name NATPATH natural-path-name

        [ { SIZE size } ]
          [ FMSIZE size-from ] [ TOSIZE size-to ]

        [ { DATE date } ]
          [ FMDATE date-from ] [ TODATE date-to ]

      )
    ]

```

### Keyword Explanation - Natural-related Object Selection

Below is a description of the keywords and the valid values for the objects to be processed:

Keyword	Values	Default Value
<i>object-name</i>	The name of the Natural-related object. If <i>object-name</i> contains blank characters, it must be enclosed in quotation marks (" "). See also (*) Name.	none
NATPATH	NATDIR NATGUI_BMP TMP_PATH NATBIN PROFILE_PATH PARM_PATH NATERR	none
DATE	The save or catalog date of the Natural-related objects. You can add a time by inserting a blank between date and time. For the format and ranges allowed, see (*) Date and (*) Time.  Special terms allowed are: <u>YESTERDAY</u> and <u>TODAY</u> . See (*) Special Dates.	blank (no check)
FMDATE	Start value: the date on or after which the Natural-related objects were cataloged or saved. The format is identical to DATE. See (*) Date.  Special terms allowed are: <u>YEAR</u> , <u>MONTH</u> , <u>YESTERDAY</u> and <u>TODAY</u> . See (*) Special Dates.	blank (no check)
TODATE	End value: the date on or before which the Natural-related objects were cataloged or saved. The format is identical to DATE. See (*) Date.  Special terms allowed are: <u>YEAR</u> , <u>MONTH</u> , <u>YESTERDAY</u> and <u>TODAY</u> . See (*) Special Dates.	blank (no check) or high value (if FMDATE specified)
SIZE	The size of the Natural-related objects. Maximum: 10-digit number.	0 (no check)
FMSIZE	The start value for the size of the Natural-related objects. Maximum: 10-digit number.	0 (no check)
TOSIZE	The end value for the size of the Natural-related objects. Maximum: 10-digit number.	0 (no check) or high value (if FMSIZE specified)
<u>EXCEPT</u>	See EXCEPT under Natural Object Selection.	

**Note:**

The NATPATH clause in the EXCEPT part is evaluated by the LOAD or SCAN command only.

## Natural System Errors Selection

This selection is used to select Natural system error messages.



## Syntax

<b>ERROR NATERROR</b>	
$\left[ \begin{array}{l} \text{DBID } dbid \text{ FNR } fnr \text{ [NAME } vsam\text{-name } ] \text{ [CIPHER } cipher ] \\ \text{[FMNUM } error\text{-number-from } ] \text{ [TONUM } error\text{-number-to } ] \\ \text{[SLKIND } message\text{-type } ] \\ \text{[LANGUAGE } languages ] \\ \text{EXCEPT (} \\ \quad \text{[FMNUM } error\text{-number-from } ] \text{ [TONUM } error\text{-number-to } ] \\ \quad \text{[SLKIND } message\text{-type } ] \\ \quad \text{[LANGUAGE } languages ] \\ \quad \text{)} \end{array} \right] \left[ \left\{ \begin{array}{l} \text{PASSWORD} \\ \text{PSW} \end{array} \right\} password \right]$	

### Keyword Explanation - Natural System Errors Selection

Below is a description of the keywords and the valid values for the system error messages to be processed:

Keyword	Values	Default Value
DBID	Only applies to objects on mainframes. A valid DBID.	0 (current FNAT/FUSER)
FNR	Only applies to objects on mainframes. A valid FNR.	0 (current NAT/FUSER)
NAME	Only applies to objects on mainframes. A valid VSAM name.	blank (current FNAT/FUSER)
CIPHER	Only applies to objects on mainframes. The 8-digit cipher code of the Adabas file where the Natural error messages are located.	blank (current FNAT/FUSER)
PASSWORD	Only applies to objects on mainframes. An 8-character Adabas password.	blank (current FNAT/FUSER)
PSW		
FMNUM	The start number of the Natural error messages. Valid range: 1 to 9999.	1
TONUM	The end number of the Natural error messages. Valid range: 1 to 9999. The value must be greater than or equal to the value of FMNUM if specified.	9999 or value of FMNUM (if specified)
SLKIND	See SLKIND under Natural Object Selection.  A = short and/or long Natural error message texts.	A
LANGUAGE	Up to 8 valid language codes of Natural error messages. Asterisk (*) = all language codes.	*
EXCEPT	See EXCEPT under Natural Object Selection.	



Keyword	Values	Default Value
<i>object-name</i>	The name of a valid Natural command processor or a range of names. See also (*) Name.	none
<u>PROCESSOR</u>	A valid Natural library name or a range of names. See also (*) Name.	none
DBID	A valid DBID of the Adabas file where the command processors are located.	Value of Lfile 190
FNR	A valid FNR of the Adabas file where the command processors are located.	Value of Lfile 190
NAME	Only applies to objects on mainframes. A valid VSAM name.	blank
CIPHER	The 8-digit cipher code of the Adabas file where the command processors are located.	blank
PASSWORD	The 8-character Adabas password of the Adabas file where the command processors are located.	blank
PSW		
<u>EXCEPT</u>	See EXCEPT under Natural Object Specification.	

**Note:**

DBID, FNR, NAME, CIPHER and PASSWORD/PSW are ignored by the LOAD and SCAN commands. These parameters must be specified in the Parameter-Setting clause as described for LOADNCP... in Keyword Explanation - Parameter-Setting.

## External Object Selection

This selection is used to select external objects.

### Syntax

<i>object-name</i> <b>PATH</b> <i>external-path-name</i>			
[	{	<b>SIZE</b> <i>size</i>	}
		[ <b>FMSIZE</b> <i>size-from</i> ] [ <b>TOSIZE</b> <i>size-to</i> ]	
]	]		
[	{	<b>DATE</b> <i>date</i>	}
		[ <b>FMDATE</b> <i>date-from</i> ] [ <b>TODATE</b> <i>date-to</i> ]	
]	]		
[	{	<b>EXCEPT</b> (	)
		<i>object-name</i> [ <b>PATH</b> <i>external-path-name</i> ]	
]	{	<b>SIZE</b> <i>size</i>	}
		[ <b>FMSIZE</b> <i>size-from</i> ] [ <b>TOSIZE</b> <i>size-to</i> ]	
]	{	<b>DATE</b> <i>date</i>	}
		[ <b>FMDATE</b> <i>date-from</i> ] [ <b>TODATE</b> <i>date-to</i> ]	
]	]		

### Keyword Explanation - External Object Selection

Below is a description of the keywords and the valid values for the external objects to be processed:

Keyword	Values	Default Value
<i>object-name</i>	The name of the external object. If <i>object-name</i> contains blank characters, it must be enclosed in quotation marks (" ").  See also Name in the section Name, Date and Time Specification.	none
PATH	The name of the path where the external object is located.	none
DATE	Save or catalog date of the external objects.  You can add a time by inserting a blank between date and time. For the format and ranges allowed, see (*) Date and (*) Time.  Special terms allowed are <u>YESTERDAY</u> and <u>TODAY</u> . See (*) Special Dates.	blank (no check)
FMDATE	Start value: the date from which the external objects are to be processed. The format is identical to DATE. See (*) Date.  Special terms allowed are <u>YEAR</u> , <u>MONTH</u> , <u>YESTERDAY</u> and <u>TODAY</u> . See (*) Special Dates.	blank (no check)
TODATE	End value: the date until which the external objects are to be processed.  The format is identical to DATE. See (*) Date.  Special terms allowed are <u>YEAR</u> , <u>MONTH</u> , <u>YESTERDAY</u> and <u>TODAY</u> . See (*) Special Dates.	blank (no check) or high value (if FMDATE specified)
SIZE	The size of the external objects. Maximum: 10-digit number.	0 (no check)
FMSIZE	The start value for the size of the external objects. Maximum: 10-digit number.	0 (no check)
TOSIZE	The end value for the size of the external objects. Maximum: 10-digit number.	0 (no check) or high value (if FMSIZE specified)
<u>EXCEPT</u>	See EXCEPT under Natural Object Selection.	

**Note:**

The NATPATH clause in the EXCEPT part is only evaluated by the LOAD and SCAN commands.

## FDT Selection

This selection is used to select Adabas FDTs.

### Syntax

<b>FDT</b>		
<b>DBID</b> <i>dbid</i>		
{	<b>FNR</b> <i>fnr</i> [ <b>CIPHER</b> <i>cipher</i> ]	[ { <b>PASSWORD</b> <b>PSW</b> } <i>password</i> ]
	<b>FMFNR</b> <i>fnr-start</i> <b>TOFNR</b> <i>fnr-end</i>	

### Keyword Explanation - FDT Selection

Below is a description of the keywords and the valid values for the FDTs to be processed:

Keyword	Values	Default Value
DBID	DBID of the FDT.	none
FNR	FNR of the FDT.	none
CIPHER	The 8-digit cipher code of the FDT.	none
PASSWORD	The 8-character Adabas password of the FDT.	none
PSW		
FMFNR	Applies to the FIND and UNLOAD commands only. The start FNR for the FDT to be processed.	none
TOFNR	Applies to the FIND and UNLOAD commands only. The end FNR for the FDT to be processed.	none